

REFERENCES

- Weber, N. A. 1943. The ants of the Imatong Mountains, Anglo-Egyptian Sudan. Bull. Mus. Comp. Zool. Harvard Coll. 93:263-389, 16 pl.
- Wheeler, G. C. and J. Wheeler. 1952. The ant larvae of the subfamily Ponerinae. Amer. Midl. Nat. 48:111-144, 604-672.
- Wheeler, W. M. 1922. The ants collected by the American Museum Congo Expedition. Bull. Amer. Mus. Nat. Hist. 45:39-269, 21 pl.
- . 1936. Ecological relations of ponerine and other ants to termites. Proc. Amer. Acad. Arts Sci. 71:159-243.

A NEW SPECIES OF POMERANTZIA BAKER FROM CALIFORNIA
(ACARINA: POMERANTZIIDAE)

DOUGLAS W. PRICE, *Department of Entomology and Parasitology,
University of California, Berkeley, California 94720*

ABSTRACT—A new pomerantziid mite, *Pomerantzia prolata*, from a forest habitat in California is described. This species is compared with *P. charlesi* Baker, the only other described species in this little known family. Comments on family characteristics and relationship to the Raphignathoidea are presented.

The family Pomerantziidae was described by Baker (1949) to accommodate a unique species of mite from peach orchard soil, Upson County, Georgia. This species, *Pomerantzia charlesi* Baker, remained for twenty years the only species assigned to this family. The present paper describes a second species, collected from soil in a ponderosa pine forest habitat in California.

Cunliffe (1955), Summers (1966), and Krantz (1970) included the Pomerantziidae in the Raphignathoidea, although noting that its phylogenetic relationships are uncertain. Southcott (1957) argues against its inclusion in this superfamily. The presence of genital discs, numerous solenidia on tarsus I, and the absence of empodia on all tarsi are characters not found in other Raphignathoid families. Although Atyeo and Baker (1964) note a resemblance between their Raphignathoid family Tarsocheylidae and the Pomerantziidae, these two families display a number of fundamental differences which argue against any close kinship. In addition to the features noted above, the structure of the palpi and chelicerae is distinct in the two families, and specialized propodosomal sensillae occur only in the Tarsocheylidae. Many of the features displayed by the Pomerantziidae are shared by certain of the Raphignathoid families, but in combination they indicate an isolated position for these rare forms.

Important distinguishing characteristics of the family Pomerantziidae include an elongate body with humeral sulcus, coxae I-II widely separated from coxae III-IV, femur subdivided on all legs, tarsi I with numerous (6-8) solenidiform sensillae, claws conventional on all tarsi but without empodia, all body setae smooth, without specialized propodosomal sensillae, chelicerae free or weakly fused basally and not forming a stylophore, with stout, sickle-shaped movable digits, short multi-chambered peritremes between basal parts of chelicerae, palpi with 6 freely-articulating segments, palp thumb-claw complex well developed, a linear series of dorso-median plates on idiosoma (1 propodosomal, 5 hysterosomal), propodosomal without eyes, without humeral setae, with three pairs of genital discs, and with a setiferous ovipositor. Our knowledge of these mites is insufficient at present to permit a clear separation of family and generic features.

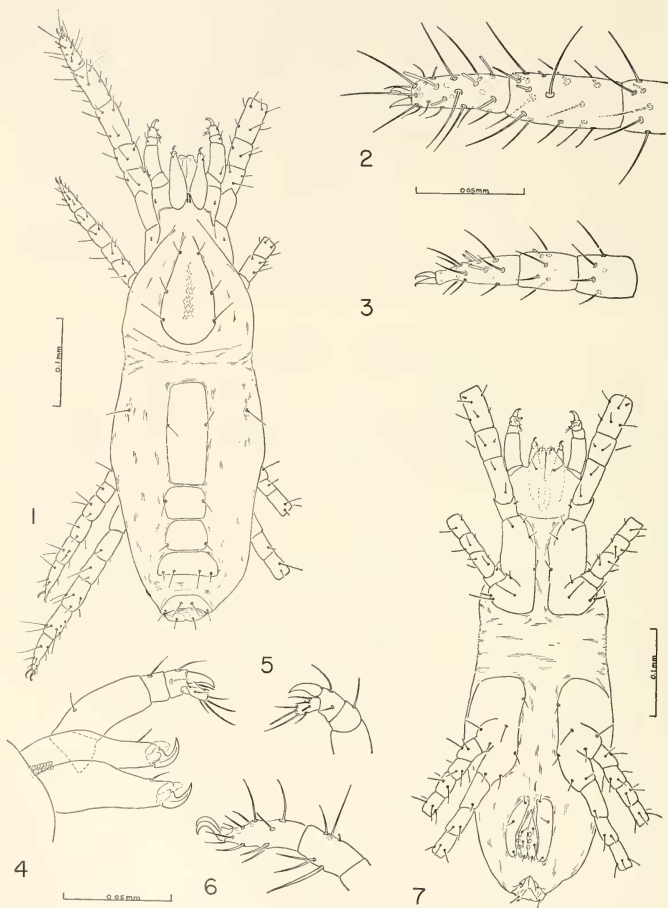
***Pomerantzia prolata*, n. sp.**

Female: Weakly sclerotized, elongate, long-legged mites with a slight humeral sulcus. Legs I and II contiguous, arising on each side from a common coxal plate; coxal plates not fused medially. Legs III and IV arise similarly, widely separated from legs I and II. Leg I much longer than leg II; leg IV longer than leg III.

Gnathosoma small, with chelicerae free or weakly fused basally, each with one pair of dorsal setae distad, near stout, sickle-like, upcurved movable digit. Membranous lobes associated with movable digit, fixed digits absent. Peritremes composed of 7 or 8 tiny, beadlike chambers between cheliceral bases. Podocephalic canals conspicuous on bases of palp coxae. Palps with 6 well defined segments; coxae with 1 pair dorsal solenidia, trochanter without setae, femur and genu with 1 pair of setae each, tibia with 2 pairs of setae and 1 stout sensory peg on inner face. Tibial claw terminal and opposed by well developed, sub-terminal tarsus to form a typical thumb-claw complex. Palp tarsus with about 9 setae. Propodosoma bears a small, drop-shaped, dorso-median plate, with a fine net-like pattern in mid-region. Propodosomal plate with three pairs of marginal setae; the hind-most pair about twice the length of the 2 sub-equal anterior pairs. Propodosoma without eyes, humeral setae, or specialized sensory setae.

Hysterosoma with 5 dorso-median plates arranged linearly. First hysterosomal plate elongate, about three times as long as wide, with a single pair of marginal setae in middle region; second and third hysterosomal plates rounded squares, equal in size, each bearing one pair of marginal setae; fourth and fifth plates wider than long, each bearing 2 pairs of setae near posterior margins, inner pairs about twice as long as outer pairs. Fifth hysterosomal plate separated from fourth by extensive membranous region not found between other hysterosomal plates. Hysterosoma with 1 pair of dorso-lateral setae only, lateral to and somewhat in front of setae of first hysterosomal plate, arising apparently from membrane rather than from sclerites.

With one pair of subcapitular setae, and 2 pairs of small setae near oral opening. Assignment of setae as ventrals or coxals on coxal plates uncertain; the tentative arrangement is to consider 1 pair on each of the anterior and posterior coxal plates



FIGS. 1-7. *Pomerantzia prolata*, n. sp.: 1, adult female, dorsal aspect; 2, tibia and tarsus I; 3, genu, tibia, and tarsus II; 4, chelicerae and left palp; 5, terminal segments of palp, outer side; 6, tibia and tarsus III; 7, adult female, ventral aspect.

as ventrals thus leaving 4 pairs on coxae I (1 of which is a dorsal solenidion), 4 pairs on coxae II, 3 pairs on coxae III, and 3 pairs on coxae IV.

Genital and paragenital setal patterns exhibit some variation in specimens examined; the normal pattern is 3 pairs of genitals and 3 pairs of paragenitals. Three pairs of genital discs; and in mature females, a conspicuous, highly pleated, setiferous ovipositor is located internally in genital region. Anal aperture terminal, with 3 pairs of setae. No other ventral setae present.

Total counts of all setae on podomeres of legs I through IV respectively are: tarsi, 22-17-11-11; tibiae, 15-6-6-10; genua, 11-5-5-6; telo-femur, 5-5-4-5; basifemur, 5-4-3-3; trochanter, 1-1-2-1; coxae, 4-4-3-3 plus on coxal plates I-II, 1 seta and on coxal plates III-IV, 1 seta. Counts of solenidia only on terminal 3 podomeres of legs I through IV are: tarsi, 6-3-0-0; tibiae, 4-1-1-1; and genua, 1-0-0-0. In addition to the true solenidia, there are some setae on the legs which have blunt tips and may be chemo-sensory in function. These have thicker walls and are more narrow than the solenidia. Other leg setae more clearly serve a tactile function, although they range from micro-setae to very stout forms.

Averages and range of measurements of 8 mature females in microns are: idiosoma from tip of opisthosoma to bases of chelicerae 430, 396-463; chelicerae to tip of movable digit 70.1, 69.5-74.3; legs from coxo-trochanteral joint to tip of claws, leg I 245.1, 239.8-261.3; leg II 157.3, 146.3-167.8; leg III 174.0, 167.8-182.2; leg IV 230.5, 218.2-249.3; tarsus I to tip of claws 48.5, 43.2-55.1.

The type-species, *P. charlesi* Baker, differs from the species herein described in a number of characteristics. Although the most useful characters for species separation in the Pomerantziidae remain to be established, the most important here are the number of chambers in the peritremes, i.e., 3 in *charlesi*, 7-8 in *prolata* and the numbers of genital and paragenital setae, i.e., 5 and 4 pairs respectively in *charlesi*, 3 and 3 pairs in *prolata*. The net-like pattern in the center of the propodosomal plate is not indicated for *charlesi*. Also, the pair of posterior marginal pores noted for *charlesi* on the third hysterosomal plate do not occur on *prolata*.

A number of other chaetotaxic differences occur; these, however, need to be confirmed by an examination of the type species. There are 8 solenidia (including the sensory peg) on tarsus I of *charlesi*, 6 in *prolata*; 2 solenidia on tarsus II of *charlesi*, 3 in *prolata*; 3 solenidia on tibia I of *charlesi*, 4 in *prolata*. The setae of the first hysterosomal plate in *charlesi* are located near the anterior margin and considerably in front of the dorso-lateral hysterosomal setae; while in *prolata* these setae are located near the middle of this plate and posterior to the dorso-lateral setae. The arrangement of the 4 setae on hysterosomal plate V into two rows in *charlesi* is distinct from the arrangement of these 4 setae in a single row in *prolata*.

The male is unknown.

In the writer's opinion, the structures called peritremes by Baker (1949) are podocephalic canals. The peritremes appear to be repre-

sented only by the bead-like structures between the cheliceral bases. Tracheal trunks are seen to descend into the body directly from the anterior ends of these structures.

As noted, variation in numbers of genital and paragenital setae appeared in the specimens examined. Instead of the typical three pairs for both sets of setae, the number on one side was often reduced to two, or the occurrence of an extra seta raised the number to four. All other chaetotaxic patterns on the body and legs appeared constant.

The type locality is the Boyce Thompson Institute Forest Research Station, 5 miles south of Grass Valley, Nevada County, California. The holotype and 2 paratypes are deposited at the United States National Museum.

REFERENCES

- Atyeo, W. T. and E. W. Baker. 1964. Tarsocheylidae, a new family of prostigmatic mites (Acarina). Bull. Univ. Nebr. State Mus. 4(11):243-256.
- Baker, E. W. 1949. Pomerantziidae, a new family of prostigmatic mites. J. Wash. Acad. Sci. 39(8):269-271.
- Cunliffe, F. 1955. A proposed classification of the Trombidiforme mites. Proc. Ent. Soc. Wash. 57(5):209-218.
- Krantz, G. W. 1970. A manual of Acarology. Oregon State University Book Stores, Inc., Corvallis, 335 pp.
- Southcott, R. V. 1957. Description of a new Australian raphignathoid mite, with remarks on the classification of the Trombidiformes (Acarina). Proc. Linn. Soc. N. S. W. 81(3):306-312.
- Summers, F. M. 1966. Key to families of the Raphignathoidea (Acarina). Acarologia 8(2):226-229.

A NOTE ON THE NOMINATE CHARACTER OF *PARACANTHA DENTATA* ACZÉL

(DIPTERA: TEPHRITIDAE)

A fine female specimen of what seemed to be *Paracantha dentata* Aczél was captured in Cajamarca, Peru, 6-7 March 1971 by Clifford O. Berg and presented by him to the U. S. National Museum. The specimen agrees well with Aczél's description (1952, Acta Zool. Lilloana 10:224) except that the entire insect is somewhat paler in color than the type of *P. dentata* and lacks the character of dentate fore femur. The type of *P. dentata*, collected 250 km north of Cajamarca, just across the border of the province of Cajamarca at Huancabamba, Piura province, is also in USNM. Its fore femur was removed, lightly macerated in NaOH, and remounted with the remainder of the specimen. The black toothlike structure of the fore femur, shown in Aczél's figure 4b, was found to be an artifact, for it dissolved away completely, leaving the femur entirely similar to those of other female *Paracantha* species.—GEORGE C. STEYSKAL, Systematic Entomology Laboratory, Agricultural Research Service, U. S. Department of Agriculture, c/o U. S. National Museum, Washington, D. C. 20560.